UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTIAN BOLIK, PETER GEMSJAEGER,
and KLAUS SCHROIFF

Appeal 2007-0643
Application 10/015,825
Technology Center 2100

Decided: March 30, 2007

Before JAMES D. THOMAS, HOWARD B. BLANKENSHIP, and
JEAN R. HOMERE, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal involves claims 1 and 3-20, the only claims pending in this application. We have jurisdiction under 35 U.S.C. §§ 6(b), 134(a).

INTRODUCTION

The claims are directed to method and apparatus for managing a

hierarchical storage management (HSM) system. HSM is used for freeing

up more expensive storage devices (e.g., magnetic disks) by migrating data

files meeting certain criteria to lower-cost storage media (e.g., magnetic

tape). (Specification 1.) Claim 1 is illustrative:

1. A method of managing a hierarchical storage management (HSM) environment, the environment including at least one HSM server and at least one file server having stored a managed file system, wherein the at least one HSM server and the at least one file server are interconnected via a network and wherein digital data files are migrated temporarily from the at least one file server to the at least one HSM server, the method comprising:

providing at least one list for identifying candidate data files to be migrated;

prespecifying a scanning scope determined by a number of candidate data files;

scanning the managed file system until having reached the prespecified number of migration candidate data files;

selecting migration candidate data files according to at least one attribute;

recording the selected migration candidate data files in the provided at least one list for identifying candidate data files; and

migrating at least part of the selected candidate data files identified in the at least one list for identifying candidate data files from the file server to the HSM server.

The Examiner relies on the following prior art reference to show

unpatentability:

Cabrera   US 6,269,382 B1   Jul. 31, 2001

The rejection as presented by the Examiner is as follows:

1. Claims 1 and 3-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by Cabrera.

OPINION

Appellants submit that the rejection of claim 1 is in error because Cabrera does not disclose prespecifying a scanning scope determined by a number of candidate data files, and scanning the managed file system until having reached the prespecified number of migration candidate data files.

As acknowledged at page 4 of the instant Specification, known HSM applications traverse the complete file system tree in order to gather eligible candidates for automigration to a remote storage. Appellants wish to distinguish their invention from the prior art, contending that an important aspect of the invention is that not a whole file system is scanned through, but only a part of it as determined by the pre-specified amount. An "amount" of files may be the number of files or the entire size of multiple files. (Specification 9:11-16.)

Appellants' claim 1 does not distinguish the invention from the prior art, however. *The claims* measure the invention. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121, 227 USPQ 577, 585 (Fed. Cir. 1985) (en banc). Our reviewing court has repeatedly warned against confining the claims to specific embodiments described in the specification. *Phillips v.*

AWH Corp., 415 F.3d 1303, 1323, 75 USPQ2d 1321, 1334 (Fed. Cir. 2005) (en banc).

The skilled artisan would appreciate that a complete file system tree would consist of a particular number (e.g., 1,000) of data files that are candidate data files (i.e., subject to scanning and possible migration). The artisan would further appreciate that, in the case that an entire file system tree is to be scanned and no new files are added to, or deleted from, the file system during the scanning, the scope of the scan is pre-determined by the number (e.g., 1,000) of candidate files. The managed file system would be scanned until no more files are left to scan -- i.e., upon having scanned the entire tree and reaching the prespecified number (1,000) of migration candidate files.

The invention of claim 1 is set forth in such broad terms that the claim is not only anticipated by Cabrera, but also embraces Appellants' description of the prior art in the Specification. "A reference anticipates a claim if it discloses the claimed invention 'such that a skilled artisan could take its teachings *in combination with his own knowledge of the particular art and be in possession of the invention.*'" *In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995) (quoting *In re LeGrice*, 301 F.2d 929, 936, 133 USPQ 365, 372 (CCPA 1962)).

We thus consider Appellants' argument in support of why the finding of anticipation over Cabrera is in error to be untenable. Even if one were to assume, as Appellants allege, that Cabrera teaches searching an entire file system for candidate files, instant claim 1 does not set forth or require the relied-upon distinction.

Appellants cancelled claim 2 after the Final Rejection, but did not cancel or otherwise modify claim 3 when limitations from claim 2 were incorporated into claim 1. Claim 3 is subject to rejection under 35 U.S.C. § 112, second paragraph, as the claim recites that the scanning scope is determined by the "total amount of data" for the candidate data files. Claim 3 is inconsistent with base claim 1, which already sets forth how the scanning scope is determined -- by a number of candidate data files.[1]

In any event, Appellants argue that Cabrera does not disclose wherein the scanning scope is determined by the total amount of data for the candidate data files and wherein the managed file system is scanned until having the prespecified amount of data. We disagree, at least for the reason that Cabrera describes a hierarchical storage manager as periodically scanning either the entire local storage or "a portion of the local storage" in order to identify candidates for pre-migration. Col. 24, l. 62 - col. 25, l. 3. Appellants do not appear to hold that the claimed "migration" is different from the pre-migration described by Cabrera. In any case, Cabrera discloses that the various described scanning techniques are equally applicable to the migration and "pre-migration" of files (e.g, col. 9, ll. 60-63; col. 14, l. 11 *et seq.*; col. 17, ll. 44-59).

Appellants also submit that Cabrera does not disclose (claim 4) that the scanning of the managed file system is resumed at a location of the

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[1] If we were to assume that claim 3 requires a determination by *both* of a number of candidate data files *and* the total amount of data for the candidate data files, the limitation would not be supported by the disclosure and thus subject at least to a written description (35 U.S.C. § 112, first paragraph) rejection.

managed file system where a previous scanning is left off, and continued accordingly. We disagree. Cabrera describes storing information in a journal file 94 (Fig. 4) to allow a hierarchical storage manager to resume operations at the point of any interruption. Col. 13, l. 62 - col. 14, l. 4.

We have considered Appellants' arguments in support of representative claims 1, 3, and 4. As we are not persuaded that any claim has been rejected in error, we sustain the § 102(e) rejection of claims 1 and 3-20.

CONCLUSION

The rejection of claims 1 and 3-20 under 35 U.S.C. § 102(e) as being anticipated by Cabrera is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

<u>AFFIRMED</u>

rwk

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